

## Grating Based Multiplexer/Demultiplexer Component

Joseph Vanniasinkam  
Jon Meyer  
Christopher Viray  
Bor-Long Twu

### Abstract

A grating based demultiplexer module is described. The module includes an integrally formed first section, second section, and third section. The first section includes a diffraction grating formed on the surface of the first section and directs a WDM beam onto the internal surface of the diffraction grating. The third section is positioned to receive angularly separated light from the external surface of the diffraction grating. In some embodiments, the third section can direct individually beams of the angularly separated light onto the surface of optical detectors. The third section provides structural support and maintains the alignment between the first section and the third section.